Remarks of David Garman
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Idaho Wind Energy Workshop
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It is great to be in Idaho… this is something of a pilgrimage for an Assistant Secretary for Energy Efficiency and Renewable Energy because over 85% of Idaho's electricity comes from renewable hydropower, which makes your electricity the most renewable-based in the nation.

But that isn't all… you've used geothermal district heating here in Boise since 1881, and Idaho ranks third in the nation in active geothermal springs.

So while a lot of people around the nation talk about renewable energy… folks in Idaho do more than just talk, and you've been doing it long time.

When I learned that Senator Crapo, Senator Craig, Governor Kempthorne and others in Idaho wanted to convene a workshop to explore the possibilities of wind energy, let's just say that there was no way I would miss it.

I'd like to thank the Governor, the Lt. Governor, the Senators, their superb staffs, and those from the Idaho Department of Water Resources, especially Gerry Galinato, Gerald Fleishman, Dick Larson and their colleagues, and the many others in the Idaho Wind Working Group and their Steering Committee who helped make this event happen.

I'd also like to publicly thank Peter Goldman and Phil Daugherty in my Washington office; and Kathy Pierce and Curtis Framel of my Seattle office, Larry Flowers from NREL, and Gary Seifert of INEEL.

There are many others, of course, not the least of which all of you for your interest and attendance. Thank you all.

Hydropower is a great renewable resource. But two years of drought, the desire to

protect and enhance salmon habitat, and uncertainties related to hydro relicensing have all suggested the wisdom of diversifying Idaho's electricity resources.

Meanwhile, Idaho's traditional need for electricity for pumping and irrigation in rural areas, coupled with a transmission grid that is at or near capacity in many areas, suggests the wisdom of distributing the generation resources at various points along the distribution grid.

So the winning strategy is to *diversify* and *distribute*… and wind energy is an excellent tool to help do just that.

Even before the September 11 attacks, the President's National Energy Plan provided us with the roadmap to greater energy security through dependable, affordable and environmentally sound energy for the future.

More than half of the Plan's 105 recommendations--54 of them to be exact--pertain to the importance of improving this nation's energy efficiency and expanding our use of clean, renewable energy sources such as wind energy.

Consistent with the balanced approach embodied in the President's National Energy Policy, we will not put all of our energy eggs in one basket. We should not do that on a national basis, nor should we do it on a regional basis.

And it is important to note that we do not expect to be able to meet our future energy needs with renewable energy alone.

But America has great renewable resource potential, and we are working to bring that potential to the market.

> We have good wind resources along ridge tops back east, across the Great Plains, and into the West and Northwest.
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> We have geothermal resources here in the West.
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> We have biomass and solar energy potential across the nation.

The federal government has invested about $13 billion for non-hydro renewable energy research and tax incentives over the past 20 years to help bring these

resources to market.

$13 billion is a great deal of money, but it is far less than we spent on civilian nuclear energy and hydroelectric power during their early development. Our investments in hydro and nuclear have paid off handsomely, resulting in 29% of our electricity production and virtually all of our emission-free generation capacity.

Our investment in non-hydro renewable energy is paying off as well. For example, in 1980, wind generated energy cost approximately 80 cents per kWh in current dollars. Federal and private sector R&D efforts have brought that cost down to as little as 4 cents per kWh, a twenty-fold decrease.

To help bring more wind into the marketplace, President Bush has called for the extension of the wind production tax credit. We are also continuing our R&D, and plan to refocus them on lower speed turbines suitable for more areas of the nation.

But there are other issues, including regulatory issues to be addressed if wind is to reach its full potential. Interconnection rules and transmission access for intermittent generation are among them.

Our discussions with the Federal Energy Regulatory Commission encourage me that these are issues they are taking very seriously, mindful of the promise of renewable energy resources.

Turning to the specific potential for wind power in Idaho… older published estimates maintain that Idaho may have 8,000 MW of wind potential… that is more than California has, and it puts you among the top 15 states in the nation in estimated wind potential.

But as you will learn during this conference, new techniques and technology may double or even triple that estimate.

Now if just 5% of the old estimate, or 400 MW, is developed, it would bring roughly $400 million in capital investment and $40 million each year in wind generated revenues, assuming a 33% capacity factor and a 4 cent per kilowatt hour price.

Each new utility-scale wind turbine that comes on line creates about $1

million in economic activity, boosting rural incomes through direct payments to farmers, ranchers, and Tribal members for land leases to site projects; infrastructure improvements; payments to school districts; and contributing to local, state and federal tax revenues.

That's important new investment and income.

Also, consider that Idaho spends $800 million annually for electricity, over half of which is spent to buy electricity from outside the state. And your energy demand is growing:

- You must power Idaho's globally competitive agriculture, forest products and mining industries.
- You must power companies such as Micron Technology, which I understand supplies 20% of the world's memory chips.
- You must power the new industries and ventures that are attracted to Idaho every day.

And just as it is not in our interest as a nation to become overly dependent on outside sources of energy, it makes sense to develop some of the new electricity resources in Idaho that will power the state's future economic growth.

Some of your neighbors share similar world-class wind resources. Montana, Washington, Oregon, Nevada and Wyoming all have wind projects. Utah is looking to start one. We have helped some of them by:

- Providing tools to measure and map wind resources;
- Examining the condition of regional transmission grids and identifying and recommending responses to constraints;
- Educating project developers on potential resource rich areas;
- Meeting with legislators and regulators to examine existing and proposed legislation, rulemakings, and other regulatory structures and mechanisms that can help or hurt wind development; and
- Increasing our own purchases of wind generated power for our Laboratories and other facilities to help develop the market.

We are also beginning an effort with the Department of the Interior to examine the barriers to developing renewable projects on federally managed lands, even as we work to develop projects on some of DOE's federal land.

Just as we have assisted other states, we will support Idaho, your Wind Energy Working Group and its members to chart a path forward to realize the potential of Idaho's wind resources.

We will help supply information and knowledge… but you have to supply the imagination.

Albert Einstein once observed that "Imagination is more important than knowledge" So to close, I'd like you to use your imagination.

Imagine how much easier it would be to deal with last month's attack if America were not so dependent on oil from foreign sources.

Imagine how much easier it would be to protect the energy infrastructure if significant portions of it were distributed and fuel independent.

Imagine how much better off a utility's balance sheet would be if they had a diversified generation portfolio that included wind when gas prices spiked or hydroelectric resources were scarce.

Imagine how much better off households would be if they weren't faced with fluctuating electricity prices.

Imagine the local benefit if we kept our energy dollars working in our own communities, states, and nation.

Imagine rural economies with important new sources of investment.

Imagine an Idaho that maintained its renewable energy leadership by balancing its existing hydro with new wind.

If you can see that and more in your mind's eye, then we will be honored to work by your side as partners to make it happen.

Thank you for your vision and your hospitality.